

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(BT) (2012 to 2017) (Sem.-3)

Subject Code : BTBT-303

M.Code : 55073

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A

1. Describe briefly :

- a) Bacterial endospore
- b) Pili
- c) Single cell isolation
- d) Active transport vs. passive transport
- e) Synchronous vs. asynchronous growth
- f) Transduction
- g) Continuous vs. Fed-batch fermentation
- h) Biofertilizers
- i) Solid state fermentation
- j) Chemical sterilization

SECTION-B

2. Give a brief account of characteristics of bacteriophages.
3. Describe the factors affecting bacterial growth.
4. Describe the methods used for the measurement of bacterial growth.
5. Describe two important feed-stocks used for industrial fermentations.
6. Describe the large scale production of microbial insecticides.

SECTION-C

7. Describe various techniques used for preservation of microbes. Also highlight merits and demerits of each technique.
8. What is bacterial recombination? Describe briefly transformation and transduction.
9. What is strain improvement? Describe the techniques used for the improvement of industrially important microorganisms.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.